REMARKS

Claims 1-14 remain pending in the application, with claims 1, 4, 6, 8, 10 and 13 having been amended hereby.

It is believed that this Amendment does not raise new issues that would require further consideration and/or search, and this Amendment also does not raise the issue of new matter. It is respectfully submitted that this Amendment places the application in better form for appeal by materially reducing or simplifying the issues for appeal. Entry of the foregoing amendments to claims 1, 4, 6, 8, 10, and 13 is therefore requested.

Claims 1, 2, 4-8 and 10-14 have been finally rejected under 35 USC §103(a) as being unpatentable over Poisner (U.S. Patent No. 6,012,154, hereinafter Poisner) in view of Kadnier, Windows NT 4: The Complete Reference (hereinafter Kadnier).

Amended independent claims 1, 8 and 13 recite a safety device for a stored-program control coupling a computer bus system with a peripheral bus system to which a peripheral is connected. It is noted in this regard that additional structure within the preamble may operate as a claim limitation. See Corning Glass Works v. Sumitomo Electric U.S.A., Inc., 868 F.2d 1251, 1257, 9 USPQ2d 1962, 1966 (Fed. Cir. 1989). The features of the preamble are to be viewed as claim limitations **particularly when the additional structure gives "life and meaning" to the claim and provides further positive limitations to the invention claimed.** See Perkin-Elmer Corp. v. Computervision Corp., 732 F.2d 888, 896 (Fed. Cir.), cert. denied, 469 U.S. 857 (1984). It is submitted that this is the case here, since claims 1, 8 and 13 have been amended to point out a structural relationship between the safety device, the computer bus system and the peripheral bus system which gives further meaning to the claims as a whole.

The Poisner reference does not recite a safety device that couples a computer bus system with a peripheral bus system to which a peripheral is connected, and which safety device includes a controller for exchanging data with the stored-program control, as recited in claims 1, 8 and 13. Throughout the Final Office Action, the Examiner equates the processor (identified in Figure 2 of Poisner with the number 205) with the claimed controller. (See e.g., Final Office Action, page 2, paragraph 2). From Figure 2, it can be discerned that the processor (205) is

positioned behind a host bus (220) and is not positioned between the host bus and the expansion bus. Conversely, Poisner depicts an expansion bus bridge (230) that is positioned between a host bus and an expansion bus, but does not include a controller that exchanges data with a stored-program control. Thus, the expansion bus bridge, which is the only device in Poisner that couples the host bus to the expansion bus, does not meet the limitation of the claimed safety device which includes a local controller, as recited in independent claims 1, 8 and 13.

This difference between the claimed subject matter and the device disclosed by Poisner is significant at least because the safety device according to the present invention is designed to be a modular functional unit that can be implemented using a plug-in card. (See specification, page 4, line 4). Thus, the safety device according to the present invention provides an integrated unit including processing, memory, interfacing, and monitoring capacity (configured for safety functions), which integrated unit can simply be placed in a slot suitably coupled to a computer bus and a peripheral bus in order to communicate with a stored-program control and perform the safety functions described. In contrast, the Poisner reference discloses a safety system which is less modular, with a processor (205), an OS-related agent (210), an interrupt handler and an expansion bus (230) each taking part collectively in monitoring and error correction. This design suffers from the fact that the device that may be malfunctioning (i.e., the processor (205)) takes part in the correction process, which means, unlike the present invention, there is no independent entity (i.e., an independent safety device) that can be relied upon to exchange and store important configuration and safety-related data . (See specification, page 5, lines 9-21).

Since the Kadnier reference merely gives an overview of "real-time systems" and fails to cure the deficiencies of the Poisner reference discussed above, it is respectfully submitted that the combination of Poisner and Kadnier references does not disclose or suggest all of the limitations of independent claims 1, 8 and 13. Likewise, the combination of applied references fails to disclose or suggest all of the limitations of dependent claims 2, 4-7, 10-12 and 14. Withdrawal of the rejection of claims 1, 2, 4-8 and 10-14 under 35 USC §103(a) is therefore respectfully requested.

Claims 3 and 9 have been finally rejected under 35 USC §103(a) as being unpatentable over Poisner in view of Kadnier. In this rejection, the Examiner has

taken Official Notice that "in the art of error detecting and displaying it is well known in the art to display the error (operability) in the system (stored-program control)." Applicants disagree with this assertion as being nothing more than an unsupported opinion based on Examiner's personal knowledge, for which assertion a supporting reference should be cited. (See MPEP 2144.03). Furthermore, regardless of the merit of the Examiner's official notice, it is submitted that claims 3 and 9 are patentable over the cited references for the same reasons discussed above with respect to independent claims 1 and 8, from which claims 3 and 9 depend, respectively.

Accordingly, withdrawal of the rejection of claims 3 and 9 under 35 USC §103(a) is respectfully requested.

CONCLUSION

In light of the above discussion, Applicants respectfully submit that the present application is in all aspects in allowable condition, and earnestly solicit favorable reconsideration and early issuance of a Notice of Allowance.

The Examiner is invited to contact the undersigned to discuss any matter concerning this application. The Office is authorized to charge any fees under 37 C.F.R. §§1.16 or 1.17 related to this communication to Deposit Account No. 11-0600.

Respectfully submitted,

Dated: 10/27/03

By: for Richard L. Mayer (by [illegible])
Richard L. Mayer (Reg. No. 22,490) (R. No. 36,197)
KENYON & KENYON
Tel: (212) 425-7200
CUSTOMER NO. 26646

PATENT & TRADEMARK OFFICE